REMARKS

I. **Introduction**

Claims 1-9 and 18-21 are pending. Claims 10-17 and 22-24 have been canceled. Claims 1-7 and 18-21 have been amended. A redlined copy of the amended claims is set forth in Appendix A for the Examiner's review.

In the Office Action the Examiner rejected original claims 1-24 as being anticipated by U.S. Patent No. 5,901,2116,374,102 to Brachman et al. As amended, none of the pending claims are anticipated or rendered obvious by the Brachman et al. patent.

For the Examiner's convenience an interview summary, summary of the invention and a discussion of why the pending claims are patentable over the applied prior art is set forth below.

II. **Interview Summary**

This Amendment follows a May 14, 2003 telephone interview in which Applicant's representative, Michael Straub, Reg. No. 36,941, discussed the pending claims and, particularly, claims 6 and claims 22-24 with the Examiner. Applicants representative indicated an intent to amend the claims to focus more on various elements found in these original claims and other features believed to distinguish over the applied prior art. In

particular, Applicant's representative argued that the applied prior art, **U.S. Patent No. 6,374,102 did not disclose updating of a call processing record used to control call forwarding, including forwarding to voice mail, from a voice mail IP let alone multiple peripheral devices, e.g., an IVR IP and a Voice Mail IP. It was also argued that the applied reference did not disclose updating of a call processing record used to control call forwarding via the Internet and that the reference also failed to disclose a follow-me type call forwarding service** and the various combinations of these features of the invention. Applicant's representative noted the invention resolves problems, e.g., user convenience and potential control problems, that can arise from implementing voice mail and call forwarding services separately or with such services being controlled from a single IP. The discussion below elaborates and/or restates many of these arguments. Applicant's representative indicated that he intended to amend the claims to better focus on the discussed features of the invention. The Examiner indicated that further study of the prior art would be required before reaching a conclusion as to Applicant's arguments.

III. Summary of the Invention

The present invention is directed to methods and apparatus for providing call forwarding and voice mail services to a service subscriber using shared AIN

functionality. Call forwarding may be controlled through a first IP, e.g., Interactive Voice Response (IVR) IP 10, while Voice Mail may be controlled by a second IP (Voice Mail IP 30), e.g. with both IPs being able to effect changes in a service subscriber's call processing record (CPR) that affect call forwarding functionality. (See, e.g., page 65, lines 1-14 of the present application). Internet access via a server, e.g., Internet server 32, provides yet a third way to modify CPR information corresponding to call forwarding related services.

Significantly, **by having the voice mail and call forwarding IPs modify a single CPR which supports both services, it is possible to centralize control of the services and to limit settings so that the different services do not create conflicts with one another. This is achieved by allowing call forwarding settings to be modified through different IPs, e.g., a Voice Mail IP and an IVR IP in a manner that is relatively transparent to a user so that they do not have to think about the impact changes made to their voice mail might have with regard to their call forwarding and further, from the service provider's perspective, it is possible to present the two services as independent services.**

The call forwarding is controlled in accordance with the invention by information included in a call processing record (CPR) used by a service control point to control call forwarding operations. Call forwarding

on no answer services where an unanswered call is forward are supported as well as follow-me forwarding services where calls may be sequentially forward to a number of telephone numbers on a call forwarding list stored in a CPR.

In accordance with the invention, a call forwarding service subscriber can set the amount of time or number of rings a phone is allowed to ring before a call is forwarded, e.g., to voice mail or another number. **The user can control the forwarding time as well as disable/enable call forwarding though a number of different ways. General call forwarding control is provided through the use of an Interactive Voice Response (IVR) IP** through which a user can make changes to the call forwarding service information via a telephone. **Second, some call forwarding information can be changed by connecting to the Voice Mail IP.** This information generally relates to parameters/settings that relate to call forwarding to voice mail, e.g., in the case where a call is not answered. One of the call forwarding setting stored in the subscriber's CPR which can be changed via the Voice Mail IP is the time/rings a phone is allowed to ring before a call is forwarded. **Thirdly, Internet connectivity is also supported through an Internet server** allowing a user to modify/update call forwarding information.

By providing the Voice Mail IP with the ability to update the call forwarding CPR information, to adjust call forwarding parameters, e.g., forwarding time or ring count, a user is provided with the opportunity to control voice mail call forwarding settings while connected to the voice mail IP, e.g., before or after retrieving messages, without the need to separately access the IP used to provide general control of call forwarding functionality. Thus, in accordance with the invention, voice mail service can be implemented using a separate IP from the IP used to control a subscriber's general call forwarding services. This allows voice mail functionality to be located in one IP with general call forwarding setting responsibility being handled by another IP. This has the advantage of allowing 3rd party voice mail systems to be used in combination with AIN based call forwarding services in a manner that appears to a service user, if desired, as separate services. It also avoids the need to co-locate voice mail control functionality with the IVR functionality used to control call forwarding services such as follow-me call forwarding service, which are not limited to voice mail applications.

The applied prior art does not teach, disclose or suggest using different IP's, one used to control general call forwarding changes and another to provide voice mail services, either of can update a time or ring count stored in a CPR which is used to determine how long to

allow a phone to ring before forwarding the unanswered call to voice mail.

IV. The Rejections Under §102

Original claims 1-24 were rejected as being anticipated by U.S. Patent No. 6,374,102 to Brachman et al. This patent describes an AIN based call forwarding system which, among other things, allows calls to be forwarded to a voice mail system (107) from which a call can later be retrieved (See, col. 4, lines 34-47). Call forwarding is controlled by an Network Sever Platfom (NSP) which is a Service Control Point (SC) (See col 17, lines 56-60). While the Brachman et al. patent describes forwarding of calls to a voice mail system, it does not describe controlling the call forwarding from multiple IP devices. **More particularly it does not teach, disclose or suggest controlling call forwarding information in a call processing record from the voice mail system 107.** The Brachman et al. system also fails to teach, disclose or suggest controlling call forwarding and/or voice mail functionality via the Internet. **It also fails to disclose multiple call forwarding services, one involving the dialing of sequential number on a list, e.g., as in the case of the follow-me call forwarding service of the present invention. (See list of call forwarding services Col. 6, lines 41-50 none of which is a follow me type service)**

Since the Brachman et al. patent fails to teach, disclose or suggest any of the above mentioned claim features, the pending claims are clearly patentable over the Brachmane et al. patent.

V. Conclusion

Claims 1-9 and 18-21 are pending. None of the claims are anticipated or rendered obvious by the prior art of record. Accordingly, the application is now in condition for allowance.

If there are any outstanding issues that need to be resolved to place the application in condition for allowance the Examiner is invited to contact Applicants' undersigned representative to discuss said issues.

Respectfully submitted,

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May 15, 2003

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper (and any accompanying paper(s)) is being facsimile transmitted to the United States Patents and Trademark Office on the date shown below.

Michael P. Straub
Type or print name of person signing certification

Michael P Straub — Signature
5/15/03 — Date

Appendix A

Redlined Version of Claims Showing Changes Made by the Current Amendment

1. (Amended) A method of providing a call forwarding and a voice mail service, comprising:

storing, in a call processing record accessible by a service control point, information on the amount of time a telephone is allowed to ring before [a] an unanswered call to the telephone is forwarded;

storing, in said call processing record, a telephone number to which the unanswered call is to be forwarded, said telephone number corresponding to one of a telephone and a voice mail system;

and

modifying said stored information on the amount of time a telephone is allowed to ring based on information received by said voice mail system; and

forwarding a call to said telephone after the telephone rings for said amount of time.

2. (Amended) The method of claim 1, wherein said voice mail system is separate from an interactive peripheral device through which call forwarding service information can be updated by a telephone call to said interactive peripheral device, said method further comprising:

modifying said stored information on the amount of time a telephone is allowed to ring based on

information received by said interactive peripheral device as part of a telephone call [means for allowing a call forwarding service subscriber to set the amount of time said telephone is allowed to ring before a call to said telephone is forwarded].

3. (Amended) The method of claim 2, wherein the stored information on the amount of time a telephone is allowed to ring is a ring count and wherein said [means for allowing a call forwarding service subscriber to set the amount of time said telephone is allowed to ring] interactive peripheral device includes an interface for receiving ring count information from said service subscriber via a telephone.

4. (Amended) The method of claim 2, [wherein the stored information is a ring count and wherein said means for allowing a call forwarding service subscriber to set the amount of time said telephone is allowed to ring includes an interface for receiving ring count information from said service subscriber] further comprising updating said stored information on the amount of time a telephone is allowed to ring based on information received via the Internet.

5. (Amended) The method of claim 1 wherein storing information on the amount of time a telephone is allowed

to ring before a call to the telephone is forwarded includes:

receiving ring count information from a telephone service subscriber; and

storing the ring count information in [a] said call processing record.

6. (Amended) The method of claim [5] 2, further comprising:

[a voice mail system the voice mail system including:

means for interfacing with said telephone service subscriber; and

means for modifying the stored ring count information] storing information in the call processing record used to implement at least two different call forwarding services, said two different call forwarding services including at least one service wherein an unanswered call is sequentially forwarded when unanswered based on a list of multiple call forwarding telephone numbers stored in said call processing record and a call forwarding on no answer service wherein said unanswered call is forwarded to said voice mail system when said call forwarding on no answer service is active, said call processing record including at least one indicator indicating which of said call forwarding services is active at a given point in time, information stored in said call processing record associated with said call forwarding on no answer service being updatable via said

voice mail system, information in said call processing record corresponding to said sequential call forwarding being updateable via said interactive peripheral device.

7. (Amended) The method of claim [1] 2, wherein prior to forwarding said call the method further comprises:

setting a trigger on a telephone line coupled to said telephone;

in response to activation of said trigger by a call directed to said telephone, sending a message to a service control point;

receiving a control message from said service control point; and

in response to said message setting a timer used to measure the amount of time the telephone rings.

8. The method of claim 7, further comprising:

in response to the timer reaching said amount of time a telephone is allowed to ring, sending another message to the service control point; and

receiving a message from the service control point including a telephone number to be used to forward said call.

9. The method of claim 7, further comprising:

operating the service control point to use a next event list to determine the telephone number to be used to forward said call.

10. Canceled.

11. Canceled.

12. Canceled.

13. Cancled.

14. Canceled.

15. Canceled.

16. Canceled.

17 Canceled.

18. (Amended) A telephone system capable of forwarding a call <u>directed to a telephone</u>, comprising:

[a telephone for receiving calls;]

a service control point including information on the amount of time said telephone should be allowed to ring before forwarding a call directed to said telephone to another destination; [and]

a telephone switch coupled to said control point and to said telephone for detecting the amount of time said telephone rings and for forwarding calls<u>;</u>

<u>an interactive peripheral device coupled to said telephone switch for receiving calls used to control call forwarding operations, said interactive peripheral</u>

device including means for receiving information via a telephone call and means for updating said information on the amount of time a telephone should be allowed to ring as a function of information received via a telephone call; and

a voice mail system coupled to said service control point, said voice mail system including means for updating said information on the amount of time a telephone should be allowed to ring as a function of information received by said voice mail system via a telephone call.

19. The telephone system of claim 18, further comprising:

a plurality of call processing records stored at said service control point, one of said call processing records corresponding to said telephone and including said information on the amount of time said telephone should be allowed to ring.

20. (Amended) The telephone system of claim 19, wherein said [information is ring count information] one of said call processing records includes a set of information corresponding to a call forwarding on no answer service and another set of information corresponding to a sequential call forwarding service wherein an unanswered call is sequentially forwarded to telephone numbers included in a list.

21. (Amended) The telephone system of claim 20, further comprising: [means] a server coupled to the Internet and to the service control point for allowing a telephone service subscriber to set the [ring count information in the call processing record corresponding to said telephone] amount of time a call is allowed to ring via information transmitted over the Internet.

22. Canceled.

23. Canceled.

24. Canceled.